



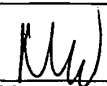
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,629	10/28/2003	Konrad Gluschke	22704	6408
535	7590	12/06/2004	EXAMINER	
THE FIRM OF KARL F ROSS 5676 RIVERDALE AVENUE PO BOX 900 RIVERDALE (BRONX), NY 10471-0900			PALABRICA, RICARDO J	
			ART UNIT	PAPER NUMBER
			3641	

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/695,629	Applicant(s) GLUSCHKE ET AL.	
	Examiner Rick Palabrica	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 1-6 and 8 is/are rejected.

7) ☒ Claim(s) 7-11 is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a) ☒ All b) ☐ Some * c) ☐ None of:

 1. ☐ Certified copies of the priority documents have been received.

 2. ☐ Certified copies of the priority documents have been received in Application No. ____.

 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 10/28/03.

4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. ____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim recites the limitation, "wherein the inner and outer wall sections of the tube are soft annealed." Underlining provided. There is neither an adequate description nor enabling disclosure as to what is encompassed by the term "soft annealed", e.g., what annealing temperature range and annealing time duration constitute so-called "soft annealing."

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The metes and bounds of the claim cannot be determined because the criteria for determining what constitutes "soft annealing" are not specified.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 5, 6, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Pennington (US 2002/0003851 A1), who discloses a system for storing spent nuclear fuel (see Figs. 1 and 2).

As to claim 1, Applicant's claim language reads on Pennington's apparatus as follows: a) "inner and outer walls" reads on inner and outer walls of the outer canister 108; b) "cover at upper end" reads on lid of outer canister 108 (see also paragraph 0023); c) "floor at lower end" reads on the floor of the outer canister, or the floor of the overpack 102; d) "plurality of axially extending and angularly spaced heat conducting metal tubes" reads on the plurality of elements 150 (which are metallic) in the outer canister; e) "filler mass in the space" reads on neutron absorber material filling spaces 152 (see also paragraph 0021).

As to claim 2, some elastic deformation occurs when elements 150 are inserted in the outer canister particularly at the points of contact between an element and the inner and outer walls (see Fig. 2). These deformations, which read on Applicant's claim language "elastically deformed", become more pronounced when the spaces 152 are filled with a neutron absorber because an element will be further urged towards the walls.

As to claims 4, 5 and 8, the elements 150 have a rectangular cross section and extend a full axial length of the space. (Examiner's note: The term "section" in section 8 is interpreted as "cross section". See also section of this Office Action).

As to claim 6, the inner and outer wall sections has a curvature complementary to a curvature of the respective inner and outer side wall at the points of contact between an element and the canister walls.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bienek et al. (U.S. 4,488,048) in view of Anderson et al. (U.S. 3,780,306). Bienek et al. disclose the Applicant's claims except for the filler mass in the annular space between the inner and outer sidewalls.

Bienek et al. discloses a container for storage of radioactive material. They teach an embodiment in Fig. 24 that reads on the claims except for the filler. Applicant's claim language reads on Bienek et al.'s apparatus as follows: a) "inner and outer walls" reads, respectively, on the outer wall of inner casing 69 and inner wall of outer casing 67; b) "cover at upper end" reads on the cover 4 of outer casing (see Fig. 1); c) "floor at lower end" reads on the floor of the outer casing (see Fig. 26); d) "plurality of axially extending

and angularly spaced heat conducting metal tubes" reads on the plurality of tube-like frictional engagement elements 69 disposed in the annular space 70 between the two casings 67 and 69 (see Fig. 24 and col. 10, lines 38+). Note that these frictional elements are made of metallic material (see col. 2, lines 15+). Being metallic, they inherently conduct and dissipate heat.

As to claim 2, frictional elements 69 are inherently elastically deformed when inserted in the outer canister particularly at the points of contact between an element and the inner and outer walls.

As to claim 6, the inner and outer wall sections each has a curvature complementary to a curvature of the respective inner and outer sidewall at the points of contact between an element 69 and the canister walls.

Anderson et al. teaches the use of embedding heat-dissipating elements in a neutron shield (water, oil, or paraffin) of a shipping container for spent nuclear fuel (see col. 4, lines 19+ and 40+). This combination of neutron shield (64) and heat dissipating element (80) is disposed in an annular space between an intermediate shell 52 and outer shell 54 (see Fig. 6).

One having ordinary skill in the art would have recognized that both references are in the same field of endeavor. A shipping container is also a storage container.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus, as disclosed by Bienek et al., by the teaching of Anderson et al., to fill the annular space between the inner and outer walls with neutron absorbing material, to gain the advantages thereof (i.e., better

shielding properties), because such modification is no more than the use of well-known expedients within the art.

Claim Objections

5. Claims 7, 9, 10 and 11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claim 8 objected to because of the following informalities: "section" in line 2 should be changed "cross section", to be consistent with how the Applicant intends to characterize the tubes, in Examiner's opinion. Appropriate correction is required.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References D-G further illustrate prior art.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 703-306-5756. The examiner can normally be reached on 6:30-5:00, Mon-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Carone can be reached on 703-306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJP
November 30, 2004

A handwritten signature in black ink, appearing to read "R Palabrica". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.